

WHAT IS CLAIMED IS:

1. An electroacoustic transducer comprising:  
a plane diaphragm and  
5 a vibration-generating driving source for vibrating  
the diaphragm,  
wherein the vibration-generating driving source is  
supported on the back side of the diaphragm near one end  
of the diaphragm, at least the one end and the two sides  
10 perpendicular to the one end and opposite to each other  
are supported on an elastic cushion member, the cushion  
member is supported on a base, with one side of the base  
supporting the diaphragm and the other side of the base  
arranged at a side opposite to the diaphragm, and a  
15 vibration controlling portion for controlling a  
particular vibration mode having a large amplitude  
generated in the diaphragm is formed in the cushion  
member or the base, and wherein the diaphragm vibrates in  
a plane direction perpendicular to the plane of the  
20 diaphragm when the vibration-generating driving source is  
driven.

2. The electroacoustic transducer according to Claim  
1,  
25 wherein the vibration controlling portion is formed  
by partly varying the width dimension of at least a  
portion of the cushion member supporting the two opposite  
sides of the diaphragm, and the elastic force of the

cushion member supporting the diaphragm is partly varied by the vibration controlling portion.

3. The electroacoustic transducer according to Claim  
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wherein the vibration controlling portion is formed by partly varying the width dimension of the cushion member by partly projecting or concaving the portion of the cushion member supporting the diaphragm.

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4. The electroacoustic transducer according to Claim  
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wherein the vibration controlling portion comprises holes formed in a portion of the cushion member, and the  
15 elastic force of the cushion member supporting the diaphragm is partly varied by the holes.

5. The electroacoustic transducer according to Claim  
1,

20 wherein the vibration controlling portion comprises a stepped portion formed in the portion of the base supporting the other side of the cushion member, and the elastic force of the cushion member supporting the diaphragm is partly varied by the stepped portion.

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6. The electroacoustic transducer according to Claim  
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wherein the vibration-generating driving source

includes a magnet arranged with a predetermined gap between the magnet and the back side of the diaphragm, and a coil wound with a predetermined gap between the coil and the outer peripheral surface of the magnet, the  
5 . coil being fixed to the back side of the diaphragm, the magnet being mounted on a first plate-shaped yoke, and wherein the first yoke is supported on a connecting member fixed to the back side of the diaphragm and a gap is formed between the first yoke and the base.